

## 1991 INDEX

### A-H

Ammonia start-up.....Feb-12  
 Better way to clean up after motor burnout  
 Jan-14  
 Catalog review.....Feb-21  
 CFCs  
 Add LAEL to CFC terminology...Nov-42  
 CFC changes could clear out  
 unqualified technicians.....Jan-25  
 CFC crisis still mystery to many...Jul-24  
 CFC phase-out speed-up seen...Jun-38  
 HFC-134a: possibilities and  
 limitations.....Nov-24  
 Low temp systems and HCFC-22  
 Oct-12  
 FMI guidelines on CFCs.....Aug-29  
 National promises off-site CFC  
 reclaim to be more contractor  
 friendly.....Aug-28  
 New technician copes with  
 CFCs.....Mar-18  
 Recycling in the field: Can it be  
 done?.....May-40  
 Refrigerants: What's next in the  
 supermarket?.....May-34  
 Shipping refrigerants.....Nov-26  
 Sorting through the recovery  
 maze.....Nov-10  
 Supermarkets ponder ways to make  
 HCFC-22 work in low temp  
 systems.....Aug-30  
 What to look for in recovery/recycling  
 equipment.....Nov-22  
 Coil icing or steaming.....Jun-16  
 Compressor check-up.....Jun-20  
 Corrosion in boilers.....Sep-19  
 Curbing energy consumption in  
 supermarkets.....May-12  
 Dehumidifying air.....Apr-14  
 Great leak search.....Oct-14  
 Hot motor matter.....Jan-14  
 How deep is deep.....Aug-16

### I-K

#### Industry News

Add LAEL to CFC terminology...Nov-42  
 Allied offers reclaim program...Nov-46  
 Allied sees CFC phase-out speed-up  
 Jun-38  
 A. O. Smith dedicates Mexican plant  
 Aug-28  
 ASHRAE Expo focuses on HCFC-134a,  
 recovery units.....Apr-22  
 AC&R offers new toll free number  
 Jan-26  
 Bristol debuts 'inertia' compressors  
 May-44  
 Carrier RCD reorganizes coil shop  
 May-47  
 CFC changes could clear out  
 unqualified technicians.....Jan-25  
 Cuel-Thomas databased system  
 designed to cut office building  
 ac costs.....May-49  
 Danfoss acquires EMC.....Mar-26  
 Dow freezer floor supports warehouse  
 June-40  
 Emerson debuts motor tech center  
 May-48  
 FMI guidelines on CFCs.....Aug-29  
 FMI report: CFC crisis still mystery to  
 many.....Jul-24  
 Harkins safety project cited.....Mar-26  
 IAR relocates to Washington.....May-47  
 Imperial gains new identity.....Nov-44  
 Lennox goes back to basics.....Nov-46  
 Lennox helps keep things cool on  
 Mars.....May-46  
 Mars drops Virginia KMP labeling  
 Apr-47  
 Mepeco builds total package for  
 supermarkets.....May 42

Minnegasco tests natural gas ac  
 May-48  
 National promises off-site CFC  
 reclaim to be more contractor  
 friendly.....Aug-28  
 NHAW panelists seeks ways to close  
 gap between plentiful training  
 supplies and shortage of  
 trainees.....Jan-26  
 NHAW wholesalers talk shop with  
 touches of humor in helping  
 each other cope in tough times  
 Jul-27  
 NRA report: Ice machine makers  
 sound out soner.....Sep-23  
 Scotsman changes aspects of ice  
 machines.....Aug-28

Scotsman offers flexible lease plans  
 Apr-47  
 SnyderGeneral chillers gain ARI  
 certification.....Mar-26  
 Supermarkets ponder ways to make  
 HCFC-22 work in low temp  
 systems.....Aug-30  
 Thermal donates recycling unit...Nov-46  
 Trane chiller okayed for HCFC-123  
 Mar-26  
 Trane chiller puts 'steam' back into  
 steam heat concept.....May-51  
 Trane offers reclaim service for  
 chillers.....Nov-48  
 York wins Olympic bid.....Nov-46  
 Zero Zone acquires Desert Aire...Apr-47

## NATIONAL REFRIGERANTS, INC. A Complete Refrigerant Services Company Offering...



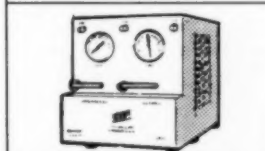
**Packaged  
 & Bulk  
 Refrigerants**



**Refrigerant  
 Recovery**



**Reclamation**



**Recovery  
 Equipment**



**Refrigerant  
 & Oil  
 Analysis**



**NATIONAL REFRIGERANTS, INC.**

**Please call to find out how we  
 can meet your refrigerant needs...**

**1-800-262-0012 215-698-7466 FAX**

# 1991 INDEX

## L-M

### Letters

Bad techs can 'burn' .....	Jun-6
Burnout odors .....	May-6
Education and technicians .....	May-6
Knowledgeable recognition .....	Mar-9
Modification and change .....	Mar-8
More on superheat .....	Jul-4
Overnight thoughts .....	Apr-6
Power factor .....	Mar-8
Psychrometric secrets .....	Nov-9
Service tech saturation .....	Feb-6
Shaded pole motors .....	June-6
Support pays off .....	Jan-6
Timely topic .....	Oct-5
What makes a member .....	Jun-7
Who's to blame .....	Jan-6
Motor burnout cleanup .....	Jan-14
Motor temperatures .....	Jan-4
MSAC Hot Line	
Ammonia plant inspections .....	Oct-10
Boiler horsepower .....	Nov-8
Capacitors .....	Apr-8
Cap tubes .....	Apr-10, Jul-12
Centrifugals .....	Jul-11
CFC-12 now, ammonia later? .....	Sep-8
CFC-113 .....	Sep-7
CFC alternatives .....	Aug-9
CFC and updrafts .....	Apr-11
CFC migration .....	Oct-7
Changing refrigerants .....	Aug-10
Charging .....	Oct-9
Compressor efficiency .....	Aug-7
Compressor load .....	Mar-6
Compressor unloading .....	May-10
Compressor without service valves .....	Oct-7
Condensing pressure control .....	Apr-10, May-7
Condensing units .....	May-8

Contactor check .....	Aug-7
Contactors .....	Dec-8
Contaminated refrigerants .....	Apr-10
Cooling system .....	Jan-9
Energy to tonnage ratio .....	Dec-8
Evacuation .....	Feb-9
Flooded evaporators .....	Sep-10
Gas fired furnaces .....	Mar-4
Gas furnace thermocouples .....	Nov-5
HCFC-134a and moisture .....	Dec-9
High discharge temperature .....	Dec-9
Hot gas lines .....	Mar-4
Induction motor bars .....	Apr-9
Locked rotor amp .....	Nov-5
Low temp systems .....	Feb-8
Mounting a compressor .....	Apr-9
Oil in compressor .....	Jan-10
Oil pressure .....	Jan-11, Dec-8
Oil return lines .....	Feb-11, May-7
Old refrigerator .....	Feb-11, Nov-8
One compressor, multiple fixtures .....	Sep-8
Pressure relief valves .....	Jul-9
Psychrometrics .....	Nov-6
Pulsations .....	Jul-10
Recycling HFC-134a .....	Nov-8
Refrigeration oil .....	Apr-9
Refrigerant purity .....	Apr-8
Refrigerants .....	Sep-9
Replacing motors .....	Jul-11
Sealing gaskets .....	Sep-7
Sightglass bubbles .....	Feb-9
Squirrel cage motor .....	Mar-4
Starting capacitor .....	Mar-7
Subcooling and superheat .....	Jan-10
Superheat adjustment .....	Oct-7
TEVs .....	May-9
Thermostats .....	Feb-10
Undercharge .....	Jun-8
Viscosity of oil .....	Jul-12

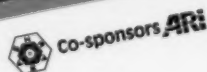
Voltages .....	Feb-11
Window air conditioners .....	Jun-11
Winter control .....	Aug-7
You be the expert .....	Jan-10

## N-P

New technicians cope with CFCs .....	Mar-18
Placing the blame .....	Dec-12
Products & Literature	
Access valves .....	Jun-28
Adjustable sensor simulator .....	Jul-32
Air conditioner cover .....	Oct-20
Air dryer .....	Dec-31
Air handler .....	Jun-28
Ammeter .....	Jun-30
Ammonia detection system .....	Jul-29
Analog multimeter .....	Mar-29
Analyzer .....	Jan-28
Back support system .....	Oct-24
Ball valve .....	Apr-49, May-56, Jun-34, Aug-25
Belt drive pumps .....	Mar-28
Beverage dispenser .....	Jul-32
Bi-folding doors .....	Sep-28
Blowers .....	Jul-30
Book on inventing .....	Dec-30
Carrying case .....	Dec-32
Charging hoses .....	Nov-34
Charge-oil pump .....	Jul-29
Clamp .....	Jan-31
Cleaner .....	Jul-30
Compressor .....	Nov-36
Condensing units .....	Jan-32, Oct-23
Connection pump .....	Apr-48
Control accessories .....	Nov-41
Controller .....	Oct-21
Control valves .....	Sep-28
Cooler .....	Jan-29
Cooler doors .....	Jun-30

## INTERNATIONAL AIR-CONDITIONING HEATING-REFRIGERATING EXPOSITION

ANAHEIM CONVENTION CENTER  
JAN. 27-29, 1992



## Your #1 HVAC/R energy-saving device

You'll get more accomplished in three days here than you could in three months traveling around the country. At the '92 AHR Expo, over 700 exhibitors will be offering innovative solutions to keep you on the cutting edge of HVAC/R technology. You'll see thousands of the latest products for new construction and retrofit applications. You'll uncover new options for improved air quality and climate control in commercial, industrial, institutional and residential properties. Determine equipment compatibility on-the-spot. Evaluate competitive products side-by-side. Whatever your HVAC/R needs, you'll save time and energy at the '92 AHR Expo. It's your industry event — make your plans now to attend.

For more information contact:  
International Exposition Company  
Tel: (212) 986-4232 Fax: (212) 682-8982

# CHAPTER PROGRAMS

## Region 1 John Bellucci CM, Dir.

**DIRIGO**  
Portland (97)  
CFCs  
Tom Carpenter  
**National Refrigerants**

**WESTERN MA**  
Springfield, MA (24)  
Humidifiers  
Dennis Gregson  
**Norman Associates**

**PROVIDENCE**  
Providence, RI (28)  
Ice machines  
Dick Dinone  
**Jason Distributors**

**PROVIDENCE**  
Providence, RI (25)  
Dept. of Labor update  
Ted Whittaker  
**State of RI**

**GREEN MOUNTAIN**  
Burlington, VT (15)  
Balancing valves  
Morgan Leonard  
**Tour & Andersson**

**GREEN MOUNTAIN**  
Burlington, VT (22)  
Electric controls  
Kevin Mayer  
**Control Technologies**  
3 chapters reported business meetings.

## Region 2 John McFarlane CM, Dir.

**CENTRAL NY**  
Syracuse, NY (33)  
NY State engineering codes  
Jeff Merrill, Chuck Stuber  
**NY State Engineering Office**

**METRO NY**  
New York, NY (61)  
Piping systems  
Douglas Ewen  
**D & F Associates**

**NIAGARA FRONTIER**  
Buffalo, NY (32)  
Compressors  
Steve Setless  
**Carlyle**

**CENTRAL PA**  
Harrisburg, PA (33)  
System diagnosis  
Harold Myers  
**Myers Assoc.**

**FORT NECESSITY**  
Uniontown, PA (6)  
Instruments  
Charles Hauer CM  
**Education Chairperson**

**READING**  
Reading, PA (48)  
Head pressure problems  
Ed Schneider  
**Johnson Controls**

**WEST BRANCH**  
Williamsport, PA  
Pilot ignition systems  
Joe Klepac  
**Robertshaw**

**NE PA**  
Scranton, PA (58)  
CFCs  
Wendy Moerder  
**DuPont**

**NE PA**  
Scranton, PA (16)  
Split systems  
Stephen Stroh, Al Bylar  
**Stroh Assoc.**  
8 chapters reported business meetings.

## Region 3 William Godfrey CM, Dir.

**CHESAPEAKE**  
Baltimore, MD (24)  
Drive systems  
Chris Wiberg  
**Baltimore Belting**

**CHESAPEAKE**  
Baltimore, MD (21)  
Ice cream equipment & controls  
Fred Chester  
**Giant Foods**

**CHESAPEAKE**  
Baltimore, MD (47)  
Water treatment  
Terrance Bartley, David Boyle  
**Waterchem Co.**

**CAMDEN COUNTY**  
Barrington, NJ (48)  
Service tools  
Jeffrey Joss CM  
**A. A. Duckett**

**DELAWARE VALLEY**  
Philadelphia, PA (197)  
Compressor failures  
Glenn Hannegan  
**Copeland**  
3 chapters reported business meetings.

## Region 4 Wilton Harris CM, Dir.

**PENINSULA**  
Newport News, VA (15)  
HCFC-22  
Dan Meador  
**Larkin Collis**

**FOOTHILLS**  
Spindale, NC (16)  
Electric motors  
Thom Baxter  
**Magnatec**

**PEE DEE**  
Myrtle Beach, SC (19)  
CFCs and compressors  
**Copeland**

**TRIAD**  
Greensboro, NC (24)  
Refrigerants  
Terry Ellis  
**Energy Components Group**

**WINSTON SALEM**  
Winston Salem, NC (15)  
Air purification  
Bob Morrow, Bill Morrow  
**Aqua Mist**

**WINSTON SALEM**  
Winston Salem, NC (11)  
Overcurrent protection  
Darrell Johnson  
**Heritage Elect. Sales**

**BATTLEFIELD**  
Fredericksburg (9)  
Controls  
John Hess  
**Johnson Controls**

**BATTLEFIELD**  
Fredericksburg (10)  
Torch safety  
Bob McDougale  
**Arcet Equipment**  
7 chapters reported business meetings.

## Region 5 Merle Lippert CM, Dir.

**GULF**  
Ft. Walton Beach, FL (34)  
Heat pumps  
Joe Harris  
**Education chairperson**

**CENTRAL FL**  
Orlando, FL (18)  
Temp/humidity controllers  
John Dean  
**Honeywell**

**SW FL**  
Ft. Myers, FL (14)  
Safety  
Beth Stuart  
**Registered nurse**

**SUNSHINE CITY**  
St. Petersburg, FL (18)  
Air filters, t-stats, tools  
David Kaufman  
**David Kaufman & Assoc.**

**ATLANTA**  
Atlanta, GA (46)  
Compressors, plant tour  
Steve Lembo, Joe Linzmaier  
**Maneurop**

**ATLANTA**  
Atlanta, GA (25)  
CFCs, single phase  
troubleshooting  
John Young  
**Copeland**

**ATLANTA**  
Atlanta, GA (19)  
Tube analysis  
Ray Joseph, Mike Freeze  
**Tube Analysis Inc.**

**ATLANTA**  
Atlanta, GA (29)  
Balanced port TEVs  
Ernie Thayer  
**Alco**

**ATLANTA**  
Atlanta, GA (19)  
Oil fired burners  
Mike Chapman  
**Aircond Inc.**

**ATLANTA**  
Atlanta, GA (19)  
2-stage HCFC-22 systems  
Tim Willingham  
**Hussmann**

**FIVE FLAGS**  
Pensacola, FL (20)  
State laws  
Shorty White  
**Escambia County Inspection Dept.**  
6 chapters reported business meetings.

## Region 6 Joe Zeiner CM, Dir.

**CENTRAL KY**  
Lexington, KY (31)  
Oil fuel installation  
Daniel Leininger  
**Lexington Service Corp.**

**INDIANAPOLIS**  
Indianapolis, IN (100)  
Tour  
**White Industries**

**NORTHERN IN**  
Gary, IN (15)  
Balanced port valves  
Justin Enlow  
**Alco**

**NORTHERN IN**  
Gary, IN (18)  
'Good cents' program  
Gary Naillieux  
**G.W. Berkheimer**

**CLEVELAND**  
Cleveland, OH (40)  
Proper venting  
B. F. Stubbart  
**American Ducting Inc.**

**GREATER CINCINNATI**  
Cincinnati, OH (36)  
Gas safety  
Eric French, Bill Cobb  
**Cinti Gas and Electric**

**YOUNGSTOWN**  
Youngstown, OH (23)  
Gas furnaces  
Dan Cole  
**East OH Gas Co.**

**KANAWHA VALLEY**  
Charleston, WV (15)  
Service tips  
Video

**HARRY W. DRAKE**  
Terre Haute, IN (14)  
3 R's  
Howie Podbin  
**White Industries**

**HARRY W. DRAKE**  
Terre Haute, IN (9)  
Balanced port valves  
Bill Hitler  
**Sporlan**  
8 chapters reported business meetings.